**22.** The method according to [claim **1,**] claim **19,** wherein each sensor of said second sensor array is a member selected from the group consisting of an optical sensor, a mechanical sensor, a radiation sensor, a thermal sensor and combinations thereof.

## REMARKS

Claims 1-22 are pending in this application and presented for examination. Claims 20-22 were amended to correct their dependency. No new matter has been introduced. The claims are set forth in the Appendix for the Examiner's convenience. Petitioners respectfully request early action on the merits.

## CONCLUSION

In view of the foregoing, Applicants respectfully request early action on the merits. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 925-472-5002.

Respectfully submitted,

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## Appendix

1. A distributed sensing system in a networked environment for identifying an analyte, said system comprising:

a first sensor array connected to said network comprising sensors capable of producing a first response in the presence of a chemical stimulus;

a second sensor array connected to said network comprising sensors capable of producing a second response in the presence of a physical stimulus; and

a computer connected to said network having an algorithm wherein said first response and said second response are processed to identify said analyte.

2. The system according to claim **1**, wherein said algorithm selects the most relevant sensor modality in said first and said second array to identify said analyte.

3. The system according to claim **1**, wherein each sensor of said first sensor array is a member selected from the group consisting of a bulk conducting polymer film, a semiconducting polymer sensor, a surface acoustic wave device, a fiber optic micromirror, a quartz crystal microbalance, a conducting/nonconducting regions sensor, a dye impregnated polymeric coatings on optical fiber and combinations thereof.

4. The system according to claim **1**, wherein each sensor of said second sensor array is a member selected from the group consisting of an optical sensor, a mechanical sensor, a radiation sensor, a thermal sensor and combinations thereof.

5. The system according to claim **3**, wherein each sensor of said first sensor array is a conducting/nonconducting regions sensor.

6. The system according to claim **4**, wherein each sensor of said second sensor array is an optical sensor, a mechanical sensor, a radiation sensor, a thermal sensor and combinations thereof.

7. The system according to claim **1**, wherein the transmission of said first response is conducted via wired communications.

8. The system according to claim **1**, wherein the transmission of said first response is conducted via wireless communications.

**9.** The system according to claim **8**, wherein said wireless communications are implemented using communications technologies selected from a member of a group consisting of infrared technology, satellite technology, microwave technology and radio wave technology.

**10.** The system according to claim **1**, wherein said networked environment is a member selected from the group consisting of a worldwide computer network, an internet, the Internet, a wide area network, a local area network, an intranet and combinations thereof.

**11.** The system according to claim **1**, wherein said networked environment is the Internet.

**12.** A device for monitoring an analyte in an environment, said device comprising:

at least one sensor array, wherein said at least one sensor array comprises at least two sensors capable of producing a first response in the presence of a chemical stimulus;

a second sensor which is capable of producing a second response in the presence of a physical stimulus;

a connector that connects said at least one sensor array and said second sensor to a central processing unit, said central processing unit collects and stores said first and second responses; and

an analyzer configured to analyze a plurality of responses wherein said analyzer monitors said analyte in said environment.

**13.** The device according to claim **12**, wherein said second sensor is an array of sensors.

**14.** The device according to claim **12**, wherein said device is a handheld device.

**15.** The device according to claim **12**, wherein each of said at least two sensors is a member selected from the group consisting of a bulk conducting polymer film, a semiconducting polymer sensor, a surface acoustic wave device, a fiber optic micromirror, a quartz crystal microbalance, a conducting/nonconducting regions sensor, a dye impregnated polymeric coatings on optical fiber and combinations thereof.

**16.** The device according to claim **15**, wherein each of said at least two sensors is a conducting/nonconducting regions sensor.

**17.** The device according to claim **13**, wherein each sensor in said second sensor array is a member selected from the group consisting of an optical sensor, a mechanical sensor, a radiation sensor, a thermal sensor and combinations thereof.

**18.** The device according to claim **14**, wherein said handheld device further comprises a communication interface coupled to the processing device and configured to communicate with a computer network.

**19.** A method for transferring a combination of chemical and physical data over a computer network for identification of an analyte, said method comprising:

transmitting sensory data from a first sensor array comprising sensors capable of producing a first response in the presence of a chemical stimulus to a remote location;

transmitting physical data from a second sensor array comprising sensors capable of producing a second response in the presence of a physical stimulus to a remote location; and

processing said sensory and physical data at said remote location for identification of an analyte.

**20.** (Amended) The method according to claim **19**, further comprising employing a sensor selection algorithm to determine sensors in said first array.

**21.** (Amended) The method according to claim **19**, wherein each sensor of said first sensor array is a member selected from the group consisting of a bulk conducting polymer film, a semiconducting polymer sensor, a surface acoustic wave device, a fiber optic micromirror, a quartz crystal microbalance, a conducting/nonconducting regions sensor, a dye impregnated polymeric coatings on optical fiber and combinations thereof.

**22.** (Amended) The method according to claim **19**, wherein each sensor of said second sensor array is a member selected from the group consisting of an optical sensor, a mechanical sensor, a radiation sensor, a thermal sensor and combinations thereof.